

Amendments to the Claims

This listing of claims will replace all the prior revisions, and listings of claims in this application.

Listing of Claims

(Currently Amended) A munitions propellant ~~comprising~~ consisting of:

- 2 an alcohol-wet nitrocellulose component ~~comprising~~ consisting essentially of about
3 65.0% to about 95.0% of the ~~gun~~ munitions propellant by weight, said
4 nitrocellulose component having a Nitrogen proportion of substantially 12.6%
5 Nitrogen;
6 an energetic plasticizer component ~~comprising~~ consisting esstntially of about 5% to
7 about 35% of the ~~gun~~ munitions propellant by weight, said energetic plasticizer
8 component comprising N-Butyl-2-Nitratoethyl Nitramine (BuNena);
9 a burning rate moderator and stabilizer component ~~comprising~~ consisting essentially
10 of from about one-half of one percent (0.5%) to about five percent (5.0%) of the
11 ~~gun~~ munitions propellant by weight, wherein the burning rate moderator and
12 stabilizer component is one selected from the group consisting of: Sym-Diethyl
13 Diphenyl Urea, N,N'-Diethyl Carbanilide (Ethyl Centralite, Centralite I); and N-
14 Methyl-N',N'-Diphenyl Urea (Akardite II); and
15 a stabilizer component ~~comprising~~ consisting essentially of about one-half of one
16 percent (0.5%) to about five percent (5.0%) of the ~~gun~~ munitions propellant by
17 weight, and ~~comprising~~ consisting of Acetyl triethyl citrate (ATEC).

2. (Currently Amended) The munitions propellant of claim 1 wherein the nitrocellulose
2 component ~~comprising~~ which is about 65.0% to about 95% of the ~~gun~~ munitions propellant
3 by weight is a combination of a first nitrocellulose composition having a Nitrogen proportion
4 of about 13.4% Nitrogen and a second nitrocellulose composition having a Nitrogen

5 proportion of about 11.3% Nitrogen, such that the combination has an average Nitrogen
6 proportion of about 12.6% Nitrogen.

1 3. (Currently Amended) The ~~gun~~ munitions propellant of claim 1, further ~~comprising~~
2 consisting essentially of additional components, wherein the additional components
3 ~~comprising~~ are less than about 5% of the munitions propellant by weight and consist of
4 ~~include~~ a first additional component, ~~comprising~~ which is about 1.0% to 2.0% of the
5 munitions propellant by weight, said first additional component ~~comprising~~ consisting
6 essentially of graphite; a second additional component, ~~comprising~~ which is about 1.0% to
7 2.0% of the ~~guns~~ munitions propellant by weight, said second additional component
8 ~~comprising~~ consisting essentially of Potassium Sulfate; and a third additional component
9 ~~comprising~~ which is about 1.0% to 2.0% of the munitions propellant by weight, said third
10 additional component ~~comprising~~ consisting essentially of Candelilla Wax.

1 4. (Currently Amended) The ~~gun~~ munitions propellant of claim 2, further ~~comprising~~
2 consisting essentially of additional components, wherein the additional components
3 ~~comprising~~ are less than about 5% of the ~~gun~~ munitions propellant by weight and consist of
4 ~~includes~~ a first additional component, ~~comprising~~ which is about 1.0% to 2.0% of the
5 munitions propellant by weight, said first additional component ~~comprising~~ consisting
6 essentially of graphite; a second additional component, ~~comprising~~ which is about 1.0% to
7 2.0% of the ~~gun~~ munitions propellant by weight, said second additional component
8 ~~comprising~~ consisting essentially of Potassium Sulfate; and a third additional component
9 ~~comprising~~ which is about 1.0% to 2.0% of the ~~gun~~ munitions propellant by weight, said
10 third additional component ~~comprising~~ consisting essentially of Candelilla Wax.

5. (Currently Amended) The ~~gun~~ munitions propellant of claim 4, wherein the nitrocellulose
2 component is prepared using organic solvents consisting essentially of Acetone, Ethyl
3 Acetate and Di-Ethyl Ether.